

## **REMARKS/ARGUMENTS**

Claims 6, 9-11, 15, 18, and 21 are pending. Claims 7, 8, 16, 17, and 22 are canceled. Claims 1-5, 12-14, 19, and 20 are withdrawn pursuant to a previously-filed response to restriction requirement. Claims 6, 15, and 21 are amended. Support for the amendments can be found in claims 7 and 16, which are incorporated into independent claims 6 and 15, and in the as-filed specification on page 18, ll. 10-29. No new matter is added.

### **I. Objection to the Specification**

#### **I.A. Objection to the Title**

The Examiner objects to the title as not descriptive. Applicants have amended the title accordingly, thereby overcoming the objection.

#### **I.B. Objection to the Abstract**

The Examiner objects to the abstract as not being of the proper format. Applicants have amended the abstract accordingly to overcome the objection. For the Examiner's convenience, Applicants have provided a clean version of the abstract below, which is presented as 145 words of narrative text similar to elected, currently amended claim 6.

A speech recognizing device. Natural speech recognizing means recognizes speech input in an application program by dictation. Recognition result converting means converts a recognition result from said natural speech recognizing means into a final recognition result processable by said application program on the basis of a grammar to be used for recognizing said input speech in a grammar method. The recognition result converting means further comprises candidate sentence generating means for evolving said grammar to generate candidate sentences that are candidates for said final recognition result; and matching means for selecting a candidate sentence as said final recognition result among the candidate sentences by matching said candidate sentences generated by said candidate sentence generating means against the recognition result by said natural speech recognizing means. The candidate sentence comprises a sentence having an associated highest score calculated according to the formula "(ngramWords – replacedWords – rejectedWords – insertedWords)/ngramWords."

### **II. Claim Objections**

The Examiner objects to claims 21 and 22 under the assertion that a program product should be on a computer readable medium. Applicants have amended these claims accordingly, thereby overcoming the objection.

### **III. 35 U.S.C. § 102: Asserted Anticipation**

#### **III.A. Claims 6, 15, and 21**

The Examiner rejects claims 6, 15, and 21 as anticipated by *Hajime, et al.*, Speech Recognition System and its Apparatus as well as Storage Medium Recording Speech Recognition Processing Program, Japanese Patent Application Publication 11-085183, (March 30, 1999) (hereinafter "*Hajime*"). This rejection is respectfully traversed.

Claim 6 now includes the features of claim 7. Claims 15 and 21 now contain similar features. By not rejecting claim 7 in view of *Hajime*, the Examiner appears to agree that *Hajime* does not teach all of the features of claim 6 as amended. Accordingly, this rejection is overcome.

#### **III.B. Claims 6-9, 15-17, 21, and 22**

The Examiner rejects claims 6-9, 15-17, 21, and 22 as anticipated by *Tsuboi, et al.*, Speech Recognition Apparatus Using Syntactic and Semantic Analysis, U.S. Patent 5,457,768 (October 10, 1995) (hereinafter "*Tsuboi*"). This rejection is respectfully traversed.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). In this case, each and every feature of the presently claimed invention is not identically shown in the cited reference, arranged as they are in the claims.

Applicants first address the rejection of claim 6. Claim 6 as amended is as follows:

6. (Currently Amended) A speech recognizing device comprising:
  - natural speech recognizing means for recognizing speech input in an application program by dictation; and
  - recognition result converting means for converting a recognition result from said natural speech recognizing means into a final recognition result processable by said application program on the basis of a grammar to be used for recognizing said input speech in a grammar method, wherein said recognition result converting means further comprises:
    - candidate sentence generating means for evolving said grammar to generate candidate sentences that are candidates for said final recognition result; and
    - matching means for selecting a candidate sentence as said final recognition result among the candidate sentences by matching said candidate sentences generated by said candidate sentence generating means against the recognition result by said natural speech recognizing means, and wherein the

candidate sentence comprises a sentence having an associated highest score calculated according to the formula:

$$(\text{ngramWords} - \text{replacedWords} - \text{rejectedWords} - \text{insertedWords}) / \text{ngramWords}$$

wherein “ngramWords” comprises a first number of words contained in an N-gram recognition result, “replacedWords” comprises a second number of words that have been replaced with different words for the N-gram recognition result; “rejectedWords” comprises a third number of words that are contained in the N-gram recognition result but not in the candidate sentences, and “insertedWords” comprises a fourth number of words that are not contained in the N-gram recognition result but are contained in the candidate sentences.

*Tsuboi* does not anticipate claim 6 as amended because *Tsuboi* does not teach the claimed feature that candidate sentence comprises a sentence with a highest score calculated according to the specified formula having the specified properties. *Tsuboi* teaches a speech recognition apparatus comprises a speech input unit for receiving an input speech signal, analyzing it, and outputting a speech feature parameter series. *Tsuboi*, Abstract. A speech recognition unit extracts a speech feature vector from the parameter series, and matching it with a plurality of predetermined words to output a series of word candidates used as keywords. *Id.* A syntactic analysis unit analyzes the series of the word candidates as the keywords according to syntactic limitation, and generates a sentence candidate. *Id.*

However, *Tsuboi* is devoid of disclosure regarding the recited formula, and is devoid of disclosure regarding the use of ngram words, as claimed. Accordingly, under the standards of *In re Bond*, *Tsuboi* does not anticipate claim 6.

The remaining claims now all contain features similar to those presented in claim 6 as amended. Accordingly, the remaining claims should now overcome *Tsuboi* at least for the same reasons presented above.

#### IV. **35 U.S.C. § 103: Asserted Obviousness**

The Examiner rejects claims 10, 11, and 18 as obvious in view of *Tsuboi*. This rejection is respectfully traversed.

The rejection is based on the Examiner’s assertion that “one of ordinary skill in the art would know that designers could design statistical models with various features in mind.” Applicants point out that whether or not one of ordinary skill in the art *could* design a statistical model, as claimed, is not the standard required for the determination of obviousness. Rather, the standard is, “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent *reason to*

combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). Thus, the Examiner must provide a valid reason to combine or modify the known elements, not simply point out that the one of ordinary skill in the art *could* do so. Because the Examiner did not do so, the Examiner failed to state a *prima facie* obviousness rejection against claims 10, 11, and 18.

Furthermore, the claims have been amended to include the features now provided in claim 6. As provided above, *Tsuboi* is devoid of disclosure regarding the newly added claim features. To Applicant’s knowledge, no such disclosure exists. Furthermore, the obviousness of the newly presented claim features cannot be assumed to be common knowledge. Therefore, no *prima facie* obviousness rejection can be stated against claim 6, or any other pending claim, using *Tsuboi* alone, or using using *Tsuboi* combined with the knowledge of one of skill in the art. Accordingly, this rejection is overcome.

#### V. Conclusion

The subject application is patentable over the cited references and should now be in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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